

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (currently amended) A switching arrangement adapted to switch a load on and off, the switching arrangement comprising a plurality of modules, to each of which signals are to be applied, each module carrying two current transformer secondary windings and there being a primary transformer loop in the form of a transmission line which is common to each module and which couples with the two transformer windings of each module.

2. (previously presented) The arrangement as claimed in claim 1 wherein the primary transformer loop comprises a coaxial line.

3. (previously presented) The arrangement as claimed in claim 1 wherein the two current transformer secondary windings on a module have an equal number of opposite turns and are connected in parallel.

4. (previously presented) The arrangement as claimed in claim 1 wherein each module is associated with a solid state switch to which trigger signals are applied via the transmission line.

5. (previously presented) The arrangement as claimed in claim 4 wherein the solid state switches are connected to provide a voltage output of tens of kilovolts.

6. (previously presented) The arrangement as claimed in claim 1 wherein the transmission line includes a load resistor.

7. (previously presented) The arrangement as claimed in claim 6 wherein the load resistor is located at substantially the mid-point of the transmission line.

8. (previously presented) The arrangement as claimed in claim 6 wherein a by-pass diode is connected in parallel with the load resistor.

9. (previously presented) The arrangement as claimed in claim 1 and including means for transmitting a current from one source along the transmission line to provide power for local low tension on each module and from another source along the transmission line to apply triggering pulses to the modules.

10. (previously presented) The arrangement as claimed in claim 9 wherein the current applied from one source is in the opposite direction along the transmission line to that applied from the other source.

11. (previously presented) The arrangement as claimed in claim 1 and including electrostatic shielding around part of the length of the transmission line.

12. (previously presented) The arrangement as claimed in claim 11 wherein there is a break in the electrostatic shielding at substantially the mid-point of the transmission line.

13. (previously presented) The arrangement as claimed in claim 11 and including a resistive load connected to the electrostatic shielding.

14. (currently amended) A switching arrangement adapted to switch a load on and off, the switching arrangement comprising:

a plurality of switching modules to which signals are applied, each module having two separate current transformer secondary windings; and

a transmission line forming a primary transformer loop, said transmission line being common to each of the current transformer secondary windings of each of said plurality of switching modules.

15. (previously presented) The switching arrangement as claimed in claim 14, wherein said primary transformer loop comprises a coaxial line.

16. (previously presented) The switching arrangement as claimed in claim 14, wherein said two separate current transformer secondary windings of each of said switching modules have an equal number of turns in opposed directions and are connected in parallel.

17. (previously presented) The switching arrangement according to claim 14, wherein each of said switching modules has an associated solid state switch for application of trigger signals via the transmission line.

18. (currently amended) The switching arrangement according to claim 14, wherein the transmission line includes a load resistor.

19. (previously presented) The switching arrangement according to claim 18, wherein the load resistor is located at substantially the mid-point of the transmission line.

20. (previously presented) The switching arrangement according to claim 18, comprising a by-pass diode connected in parallel with the load resistor.

21. (currently amended) A switching arrangement adapted to switch a load on and off, the switching arrangement comprising:

a plurality of switching modules to which signals are applied, each module having a first current transformer secondary winding and a second current transformer winding, wherein said first and second current transformer secondary windings have an equal number of turns and the turns of the first current transformer secondary winding extend in a direction opposite to the direction of the turns of said second current transformer secondary winding, and wherein said first and second current transformer secondary windings are connected in parallel; and

a transmission line forming a primary transformer loop, said transmission line being common to each of said first and second current transformer secondary windings of each of said plurality of switching modules.

22. (previously presented) The switching arrangement according to claim 21, wherein said primary transformer loop comprises a coaxial line.

23. (previously presented) The switching arrangement according to claim 21, wherein each of said plurality of switching modules is associated with a solid state switch to which trigger signals are applied via the transmission line.

24. (previously presented) The switching arrangement according to claim 21, wherein said transmission line includes a load resistor.

25. (previously presented) The switching arrangement according to claim 23 comprising electrostatic shielding around part of the length of said transmission line.

26. (previously presented) The switching arrangement according to claim 25, wherein said transmission line shielding has a break substantially at the mid-point of said transmission line.

27. (previously presented) The switching arrangement according to claim 25,
comprising a resistive load connected to said electrostatic shielding.
28. (new) The switching arrangement according to claim 1, further comprising:
at least two direct current power sources; and
a plurality of switches adapted to couple one of said at least two power sources to said
transmission line at any given time.
29. (new) The switching arrangement according to claim 14, further comprising:
at least two direct current power sources; and
a plurality of switches adapted to couple one of said at least two power sources to said
transmission line at any given time.
30. (new) The switching arrangement according to claim 21, further comprising:
at least two direct current power sources; and
a plurality of switches adapted to couple one of said at least two power sources to said
transmission line at any given time.